REMARKS

This Amendment is fully responsive to the non-final Office Action dated January 22, 2009, issued in connection with the above-identified application. A petition for a two-month extension of time accompanies this Amendment. Claims 27-30 are pending in the present application. With this Amendment, claims 27 and 29 have been amended. No new matter has been introduced by the amendments made to the claims. Favorable reconsideration is respectfully requested.

In the Office Action, Figs. 1 and 2 have been objected to for failing to include a "Prior Art" legend. Replacement Sheets have been provided for Figs. 1 and 2. The Replacement Sheets for Figs. 1 and 2 designate the figures as "Prior Art," as required by the Examiner. Withdrawal of the objection to the drawings is now respectfully requested.

In the Office Action, claims 27 and 28 have been rejected under 35 U.S.C. 101 for failing to fall into one of the four enumerated statutory classes of patentable subject matter. Specifically, the Examiner indicates that the steps recited in the claims: 1) must be tied to another statutory class (such as particular apparatus); or 2) transform underlying subject matter to a different state or thing.

The Applicants have amended independent claim 27 to clearly indicate the corresponding structure used to perform each step recited in the claim. The Applicants assert that the steps recited in the claim are now tied to a particular apparatus, as required by 35 U.S.C. 101. Withdrawal of the rejection to claims 27 and 28 under 35 U.S.C. 101 is respectfully requested.

In the Office Action, claims 27 and 29 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Sohm et al. (U.S. Patent No. 7,260,148, hereafter "Sohm") in view of an article entitled "Information Technology-Coding of Audio-Visual-Objects-Part 2: Visual ISO/IEC 14496-2" Second Edition, 2001-12-01 (hereafter "ISO-14496"), Tucker et al. (U.S. Patent No. 5,903,313, hereafter "Tucker") and Frederiksen et al. (U.S. Patent No. 5,272,529, hereafter "Frederiksen"), and further in view of well known prior art.

The Applicants have amended independent claims 27 and 29 to distinguish the present invention from the cited prior art. As amended, independent claim 27 recites the following features:

"[a] motion compensation method for generating a predictive image of a current macroblock included in a current picture with reference to a motion vector of an adjacent macroblock that is located adjacent to the current macroblock, the motion compensation method comprising:

specifying, using an adjacent macroblock specifying unit, plural adjacent macroblocks which are located adjacent to the current macroblock and are already decoded;

deriving, using a motion vector deriving unit, a motion vector of a current block included in the current macroblock using plural motion vectors of the specified plural adjacent macroblocks;

specifying, using a co-located macroblock specifying unit, a co-located macroblock which is co-located with the current macroblock and included in a picture different from the current picture including the current macroblock;

obtaining, using a motion vector obtaining unit, a motion vector of a corner block located in a corner of the co-located macroblock, when a co-located block is composed of a plurality of blocks for which motion compensation has been performed, the co-located block being co-located with the current block included in the current macroblock and being included in the co-located macroblock;

judging, using a judging unit, if a size of the obtained motion vector of the corner block is within a predetermined range;

generating, using a generating unit, a predictive image of the current block which is co-located with the co-located block, based on the result of the judging of whether the size of the obtained motion vector of the corner block is within the predetermined range,

wherein, in the generating of a predictive image of the current block, the generating is performed in such a manner that, if a size of the obtained motion vector of the corner block is judged within the predetermined range, the predictive image of the current block is generated by setting the motion vector of the current block to be "0", and

the generating is performed in such a manner that, if a size of the obtained motion vector of the corner block is judged beyond the predetermined range, the predictive image of the current block is generated by setting the motion vector of the current block to be the derived

motion vector." (Emphasis added).

The features emphasized above in independent claim 27 are similarly recited in independent claim 29 (as amended). That is, claim 29 is directed to a corresponding apparatus that includes all the features of the method of claim 27. Additionally, the features emphasized above in independent claims 27 and 29 are fully supported by the Applicants' disclosure.

The present invention (as recited in independent claims 27 and 29) is distinguishable over the cited prior art in that by determining which motion vectors are to be used based on a size of a motion vector located at a corner of a co-located block, when the co-located block is composed of a plurality of blocks, the motion vectors are generated using (a) 0 vector or (b) a motion vector of a macroblock located around a current macroblock.

In the Office Action, the Examiner relies primarily on Sohm, ISO-14496, Tucker and Frederiksen for disclosing or suggesting all the features recited in independent claims 27 and 29. However, the Applicants assert that the cited prior art fails to disclose or suggest the features now recited in at least independent claims 27 and 29, as amended.

Sohm discloses a technique for searching neighbor blocks at the time of estimating motion of a current block (see e.g., col. 17, lines 11 to 32; and Fig. 9). However, Sohm fails to disclose or suggest the unique features of present invention noted above (i.e., determining which of motion vectors is to be used based on a size of a motion vector located at a corner of a co-located block, when the co-located block is composed of a plurality of blocks; and generating motion vectors using (a) 0 vector or (b) a motion vector of a macroblock located around a current macroblock based on the determination).

ISO-14496 discloses determining an average of motion vectors of all the pixels included in a co-located macroblock and using the average for motion compensation in a temporal direct mode (see e.g., section 7.6.9.5.2). However, ISO-14496 fails to disclose or suggest switching between methods for generating a vector by using a vector of a block located at a corner of a co-located block.

Tucker discloses determining whether or not to perform motion compensation by comparing a threshold value with a size of a motion vector (see in Figs. 4A and 4B). However, Tucker in no way discloses or suggests using a motion vector of a co-located block, much less

switching between methods for generating a vector by using a vector of a block located at a corner of a co-located block when the co-located block is composed of a plurality of blocks.

Frederiksen discloses comparing a threshold value with a motion vector and changing a motion compensation method based on a result of the comparison (see col. 7, lines 45 to 50). However, Frederiksen relates to a technique for rounding a motion vector to "0" in an encoder according to an amount of coding, and differs from the present invention (as recited in independent claims 27 and 29) in which a motion vector of a co-located block is used. Thus, Frederiksen also fails to disclose or suggest switching between methods for generating a vector by using a vector of a block located at a corner of a co-located block when the co-located block is composed of a plurality of blocks.

Based on the above discussion, even if one of ordinary skill in the art were to combine the teachings of the above cited prior art, the combination still would not disclose or suggest all the features recited in at least independent claims 27 and 29, as amended. In particular, the combination of the cited prior art fails to disclose or suggest at least the following: 1) determining which motion vectors are to be used based on a size of a motion vector located at a corner of a co-located block, when the co-located block is composed of a plurality of blocks; and 2) generating motion vectors using (a) 0 vector or (b) a motion vector of a macroblock located around a current macroblock based on the determination.

Accordingly, no combination of Sohm, ISO-144496, Tucker and Frederiksen (along with any other well-known prior art) would result in, or otherwise render obvious, claims 27 and 29 (as amended).

In the Office Action, claims 28 and 30 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Sohm in view ISO-14496, Tucker, Frederiksen, well know prior art, and further in view of Chang et al. (U.S. Patent No. 6,483,876).

Claim 28 depends from independent claim 27 and claim 30 depends from independent claim 29. As noted above, Sohm, ISO-144496, Tucker and Frederiksen fail to disclose or suggest all the features recited in independent claims 27 and 29. Moreover, Chang fails to overcome the deficiencies noted above Sohm, ISO-14496, Tucker and Frederiksen. Accordingly, no combination of Sohm, ISO-144496, Tucker, Frederiksen and Chang (along with

any other well-known prior art) would result in, or otherwise render obvious, claims 28 and 30 at least by virtue of their respective dependencies from independent claims 27 and 29.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass this application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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